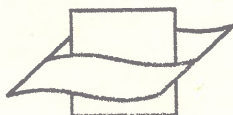


Obituary : Paul Pelseneer

Instituut voor Zeewetenschappelijk onderzoek
Institute for Marine Scientific Research
Prinses Elisabethlaan 69
8401 Bredene - Belgium - Tel. 059 / 80 37 15

BY
W. ADAM



Vlaams Instituut voor de Zee
Flanders Marine Institute

PAUL PELSENEER 1863-1945

DR PAUL PELSENEER, who was elected an Honorary Member of the Malacological Society of London in 1922, died on 5 May 1945. In him science has lost one of its greatest zoologists.

Born in Brussels on 26 June 1863, he became a member of the Belgian Malacological Society in 1880; in that year he started his long list of malacological publications which extends over more than sixty years. He studied natural sciences at the University of Brussels and obtained his doctor's degree in 1884. To complete his zoological knowledge he went to A. Giard in Lille and to Ray Lankester in London. These two zoologists had a great influence on his later scientific activity.

After having been attached temporarily to the Belgian Museum of Natural History in Brussels, he became a teacher of chemistry at the Normal School in Ghent, where he stayed from 1888 until the outbreak of the first world war.

Although Pelseeneer was an outstanding figure in the zoological world outside his country and honoured as one of the best zoologists Belgium ever had, he never succeeded in getting an appointment as university professor. He had no laboratory at his disposal and never had the opportunity to transfer his rich knowledge and experience to pupils. During his spare time he worked at zoology as an amateur in the best sense of the word.

Most of his holidays he spent in Giard's marine laboratory in Wimereux, where he studied the living animals in their natural environment. During the winter months he made his dissections and studied the anatomy with instruments so simple that they look more like children's toys. Having received art lessons from the famous Constantin Meunier, he illustrated all his scientific papers himself.

During the occupation, from 1914-1918, he was dismissed from his teachership by the German governor.

In 1919 he was appointed perpetual secretary of the Royal Academy of Belgium, of which he had been a corresponding member since 1899 and an ordinary member since 1903. Owing to the loss of his sight he had to resign in 1936.

Although he was interested in all problems of general zoology, Pelseeneer is most famous as a specialist on Mollusca. As A. Lameere stated in 1934, during a celebration in honour of Pelseeneer, when he received the degree of 'Doctor honoris causa' from the University of Brussels: 'Owing to Pelseeneer we know what a mollusc really is and what has been its evolution.' Like his friend and master A. Giard, he was morphologist, ethologist and phylogenist.

The rich collections of the Challenger and Siboga expeditions provided the material for his fundamental morphological studies on pteropods, bivalves and deep-sea molluscs. But he never contented himself with the mere knowledge of some anatomical details. He always studied the morphology as a function of the environment of the living animal and the

results of both mostly served to elucidate some evolutionary problem. His famous classification of bivalves, based on the development of the gill structure has been widely accepted and has been used in the Zoological Record since 1893. His explanation of the body-torsion of gastropods, based on the embryological development of the foot, is the most satisfactory one. Against de Lacaze-Duthiers and his school, Pelseneer maintained his point of view on the pedal origin of the epipodium. He also proved the pedal origin of the arms of cephalopods and the homology of their funnel with the epipodium of gastropods: consequently he rejected Ray Lankester's hypothesis that the cephalopods and pteropods constitute one single class.

The following enumeration of the most important of his numerous papers on molluscs gives an idea of his widespread activity¹:—

Report on the Pteropoda collected by H.M.S. Challenger (1887–1888), a monograph of the thecosomatous and gymnosomatous Pteropods, including their anatomy and phylogeny.

Report on the Anatomy of the deep-sea Mollusca (1888), a most interesting account of these animals and their adaptations to deep-sea life, with very important details on the septibranchiate bivalves and the relation of their gill structure to that of other bivalves.

Contribution à l'étude des Lamellibranches (1891).

Sur la valeur morphologique des bras et la composition du système nerveux central des Céphalopodes (1888), a thesis for which he received the degree of Doctor of Zoology.

Introduction à l'étude des Mollusques (1892–1894).

Recherches sur divers Opisthobranches (1894), crowned by the Royal Academy of Sciences.

Report on the specimen of the genus Spirula collected by H.M.S. Challenger (1894), in collaboration with Thomas Huxley; the first detailed anatomical description of this rare animal.

L'Hermaphroditisme chez les Mollusques (1895), in which Pelseneer proves that the separation of sexes is the more primitive, hermaphroditism the more developed state of sex-organs, and that in molluscs, crustaceans, and fishes, hermaphroditism has fixed itself on the female.

Mollusques (1897), the chapter on molluscs in R. Blanchard's treatise on Zoology. *Recherches morphologiques et phylogénétiques sur les Mollusques archaïques* (1899), crowned by the Royal Academy of Sciences.

Etudes sur les Gastropodes pulmonés (1901).

Mollusques du voyage de S.Y. Belgica (1903), an account of the Antarctic Mollusca with descriptions of numerous new species.

La ligne de Weber, limite zoologique de l'Asie et de l'Australie (1904), a discussion of the geographical limits of the Australian and Asiatic faunas.

Mollusca (1906), in Ray Lankester's Treatise on Zoology.

Recherches sur l'embryologie des Gastropodes (1911).

Les Lamellibranches de l'expédition du Siboga (1911).

Les variations et leur hérédité chez les Mollusques (1920), the most important work on variations in Molluscs.

Les parasites des Mollusques et les Mollusques parasites (1928).

Essai d'Ethologie zoologique d'après l'étude des Mollusques (1935), a complete account of our knowledge of the ethology of Molluscs.

Le Mécanisme de l'évolution, l'adaptation, les variations adaptatives et leur hérédité (1937) and *La conception lamarckienne de l'évolution* (1941), two papers in which Pelseneer has resumed his lamarckistic views on evolution.

In all his papers on evolutionary problems, Pelseneer shows himself a fervent disciple of Lamarck; it is a curious coincidence that both men were not appreciated by the governments of their countries and both

¹ A complete list of his scientific papers with a detailed account of his work will be published in the Bulletin of the Belgian Museum of Natural History.

suffered the saddest misfortune which a naturalist can suffer, the loss of their sight.

Among the many distinctions and honours bestowed on him, we mention that he was a member (1904) and later president (1935) of the Commission of the antarctic expedition of the *Belgica*; honorary member of the Conchological Society of Great Britain and Ireland (1905); Doctor *honoris causa* of the University of Leeds (1906); in 1912 he received the decennial prize for zoological sciences, the highest Belgian scientific award (with the money of this prize, to which he added two years of his salary as a teacher, he founded an academic prize, the 'Prix Lamarck'); in 1917, he received the 'Prix Cuvier' of the French Academy of Sciences.

As a man Pelseneer had great personal charm, because of his amiable, shy, and perfectly honest character. He was always willing to give advice to younger zoologists who appealed to his wide knowledge. It is an honour to have known this really great man, who consecrated his long life to a disinterested search for truth.

W. ADAM (Brussels).